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UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY

PERCENTAGE MARKING OF REINDEER

By

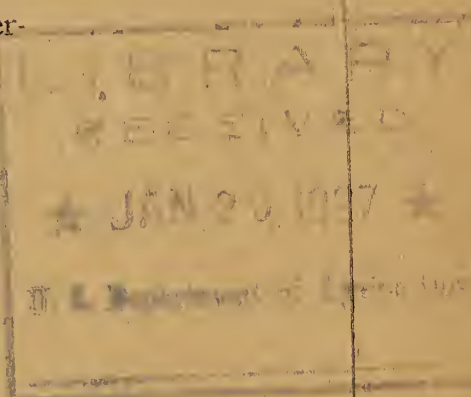
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Grazing Investigations

Reindeer Experiment Station

Fairbanks, Alaska



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BASIS OF DISTRIBUTION OF FAWNS

Under the corral method of handling reindeer as now practiced in Alaska, unmarked stock is distributed on the basis of percentage ownership of females, including female yearlings. When there is no definite record of ownership, proportionate distribution is made on the basis of the marked females passing through the chute. Once the ownership of a herd is established, the marking of fawns from year to year is done on the percentage ownership of the previous year with transfers taken into account. As unmarked yearling females are assigned, they add to the total female stock of the owner and share in the distribution of the fawns.

The percentage on which distribution is based is found by dividing the total number of fawns handled by the total number of females. The number of fawns to which each owner is entitled is found by multiplying this percentage by the number of females recorded for him.

OWNERSHIP OF STRAYS

When stray animals from adjoining herds pass through the chute, fawns are marked to their owner on the basis of 50 per cent of the stray females handled. Owners of strays do not, however, share in any unmarked yearlings--these are marked and assigned only to recognized owners in the herd.

This assignment of strays has now become a general practice in most sections of the Territory. Usually the fawn crop averages more than 50 per cent, but the margin of difference accruing to the herd is considered as the payment by the owner of the strays for the herding and handling of his animals.

INAUGURATING THE MARKING SYSTEM

In inaugurating percentage marking for the first time, owners should first agree on a definite procedure. They should record on paper a list of all transfers to be made in settlement of debts, payment of herding, or exchanges between owners, in order that the tally man may make proper account and correctly instruct the markers. It should also be determined, in certain cases, to what owners the unmarked yearlings shall be distributed, and in what proportion.

Controversies regarding ownership and payment of herding expenses should be settled and the final agreement written down for the guidance of the tally man.

TALLY SHEETS

Tally sheets should then be prepared, listing the large and small owners and indicating their approximate ownership as far as known. Columns on the tally sheets provide for recording adult reindeer--bulls, females, and steers; yearlings--males and females; and fawns--males and females. As each animal passes through the chute its ownership is noted and it is recorded by a check mark on the sheet in the proper column opposite the name of the owner. Greater space should be allowed on the tally sheet for the record of the large owners, and large and small owners should be grouped separately.

As unmarked fawns or yearlings appear through the chute the tally man shouts out to whom each shall be marked and the animal is so recorded. To determine what distribution shall be made he constantly watches his score sheets and assigns ownership of unmarked animals in proportion to the number of adult females handled.

MAKING THE ASSIGNMENTS AT ROUND-UPS

Ordinarily it may be safely figured that the fawn crop will run about 60 per cent, on the basis of adult female stock in the herd. In some of the best-handled herds it may be 70 per cent.

It is comparatively simple to make a fairly close distribution of the fawn crop among owners as the work progresses, and maintain a margin of safety by marking on the basis of female stock passing through the chute.

Upon working the last bunch through, greater care should be taken and necessary adjustments made to balance long and short assignments. It is impossible to obtain absolute accuracy, but a minimum of longs and shorts may be obtained through careful tallying. Following the handling of the first band or two through the corral a good idea may be gained of about how the fawns will run in number (that is, whether 5, 6, or 7 fawns to each 10 does), and subsequent marking may then be kept more closely in balance.

CORRECTING FLUCTUATIONS IN NUMBERS

The proportion of unmarked animals to adult females constantly fluctuates as the work progresses during the day, but distribution to conform with this variation is automatically maintained by recording on the basis of females as they appear. For example, if the run through the chute happens to be 10 females to each 5 fawns, each owner as he obtains 2 females is marked 1 fawn; or should the run be 10 females to each 6 fawns, each owner, as 5 females are recorded for him, is marked 3 fawns.

Later, toward the close of each day, totals may be figured and the actual proportion of fawns determined for the entire bunch handled,

and on the basis of this percentage further recording may be made to balance as nearly as possible the number of fawns assigned to each owner.

RECHECKING DURING HANDLING

Longs and shorts in number of fawns assigned to the individual owner may be balanced from time to time as re-checks are made of the percentage run of fawns. Re-checks should be made at the close of each day's work, if not oftener, and necessary adjustment made the first thing the next day. At the close of marking, the few longs and shorts remaining are carried over for adjustment and marking at the next year's round-up.

ADVANCE ASSIGNMENTS OF FAWNS

When the herd is being handled, fawns often bunch together, and a large number may come through all at once. And it may happen that the fawns come through early before a proportionate number of adult females have been recorded. When fawns appear faster than female adults, they may safely be marked to large owners in advance, since it is certain that a sufficient number of females of these owners will come through later on.

In no case should small owners be marked in advance a larger number of fawns than the sheets show them to be entitled to; nor should they be assigned any fawns until adult females are recorded for them.

Early in the marking it is a safe rule never to assign to small owners more than one fawn for each two females handled (50 per cent). Later on, should the percentage be shown as running higher than 50, adjustments can be made to give small owners their proper number.

DISTRIBUTION BY SEX

The same principle also applies to a correct distribution of male and female fawns. Small owners should never be marked ahead either in males or females. Should there be a heavy run of one sex, although they normally run about the same in number, and the owner's quota be filled on that particular sex, then the surplus should be marked in advance to the large owners only. A balance will eventually develop as the work progresses, particularly toward the close of the marking.

ASSIGNMENTS OF UNMARKED YEARLINGS

Unmarked yearlings are apportioned among the owners in the same way as are the fawns. These include all unmarked animals other than fawns, whether one or two years old, or older. Actually there are four distributions and four percentages to be considered. These are the male and female fawns and the male and female yearlings. Each requires a separate apportionment, although as stated, the percentage of the sexes in the fawns will run about the same.

BALANCING BY FINAL RE-CHECKING

The total percentages at the close of the first day's work should be used in distributing fawns the next day and until a further re-check is made. In continuing the marking the next day, however, a balance should first be effected to check off longs and shorts. The second re-check may show 60 or 70 per cent, for example, but whatever it may be, this new figure should be used for the subsequent marking.

Each re-check should be based on the total animals previously handled and not on that particular day's work only. Furthermore, with each re-check the increase due each owner should be refigured in toto from the beginning and a re-tabulation of longs and shorts made for further balancing.

Prior to working the last bunch of reindeer through the chute, a final re-check should be made and a balance of longs and shorts obtained to be carried over to the next year's marking for correction.

